

# Employment Cost Index

## Technical Note

The Employment Cost Index (ECI) is a quarterly index that measures the change in the cost of labor, free from the influence of employment shifts among occupations and industries. It measures that change for total compensation (wages, salaries, and employer costs for employee benefits), for wages and salaries only, and for benefit costs only.

Wages and salaries are defined as the hourly straight-time wage rate, or straight-time earnings divided by the corresponding hours. Straight-time wage and salary rates are total earnings before payroll deductions, excluding premium pay for overtime and for work on weekends and holidays, shift differentials, and nonproduction bonuses such as lump-sum payments.

Benefits covered by the ECI are: Paid leave, supplemental pay, insurance benefits, retirement and savings benefits, legally required benefits, and other benefits.

The ECI provides data for the civilian economy, which includes the private economy and the public sector—excluding farms, private households, the self-employed and the Federal Government. Data are provided separately for the public and private sectors.

Each quarter, straight-time average hourly wage and salary rates and benefit cost data are collected from a probability sample. Data are collected for the pay period including the 12th day of the survey months of March, June, September, and December.

The sample establishments are classified by industry based on the 1987 *Standard Industrial Classification (SIC) Manual*, as defined by the U.S. Office of Management and Budget. Within an establishment, specific job categories are selected to represent broad occupational definitions. In 1996, some establishments in motor freight transportation and warehousing (SIC 42), transportation by air (SIC 45), and transportation services (SIC 47) were reclassified into air courier services (SIC 4513). These establishments were engaged in the delivery of letters, parcels, and packages, but were also operated as support establishments of enterprises that engaged in furnishing air delivery of individually addressed letters, parcels, and packages. Since the definition for SIC 4513 includes support establishments, these establishments were reclassified. For the ECI, these re-

classifications took effect in the June 1998 reference period.

Fixed employment weights are used each quarter to calculate the most aggregate indexes—civilian, private, and State and local governments. These fixed weights are also used to derive all of the industry and occupation series indexes. Since March 1995, the 1990 employment counts, primarily from the Bureau's Occupational Employment Survey, were used. From June 1986 to December 1994, employment counts from the 1980 Census were used as weights. Prior to June 1986, employment counts from the 1970 Census were used.

For the series based on bargaining status, region, and area size, employment data are not available from the Census. The employment weights are reallocated within these series each quarter based on the current ECI sample. The indexes for these series, consequently, are not strictly comparable to those for the aggregate, industry, and occupation series. A fuller explanation of the calculation of index numbers appears in the article, "Estimation Procedures for the Employment Cost Index," *Monthly Labor Review*, May 1982.

Beginning with the release of ECI data for March 1990, indexes were rebased to June 1989=100. Beginning with the release of ECI data for December 1990, seasonally adjusted data are available for selected ECI series. A description of the rebasing is available in "Employment Cost Index Rebased to June 1989," *Monthly Labor Review*, April 1990.

The costs per hour worked of compensation components, based on March data from the ECI, are published in a separate news release titled, "Employer Costs for Employee Compensation." The cost levels, which are published annually in mid-June, are calculated with current employment weights, rather than the fixed 1990 weights.

More detailed information on the ECI may be obtained by writing to the ECI, Division of Compensation Data Analysis and Planning, Bureau of Labor Statistics, 2 Massachusetts Ave. NE, Room 4175, Washington, DC 20212-0001.

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TABLE A-1. **Employment Cost Index for total compensation,<sup>1</sup> wages and salaries, and benefit costs by industry and occupational group, selected periods, 1998-99**

(Seasonally adjusted data)

Industry and occupational group	Indexes (June 1989=100)		Percent changes for 3-months ended—							
	Sep. 1999	Dec. 1999	Mar. 1998	June 1998	Sep. 1998	Dec. 1998	Mar. 1999	June 1999	Sep. 1999	Dec. 1999
<b>TOTAL COMPENSATION</b>										
Civilian workers .....	142.9	144.5	0.7	0.9	0.9	0.7	0.4	1.1	0.8	1.1
State and local government .....	142.6	144.2	.7	.7	.7	.7	.6	.8	.8	1.1
Private industry .....	143.0	144.5	.7	.9	1.0	.7	.4	1.2	.8	1.0
<b>Industry</b>										
Goods producing <sup>2</sup> .....	141.0	142.5	.7	.8	.7	.5	.7	.6	.9	1.1
Construction <sup>3</sup> .....	137.5	139.0	.7	1.2	.4	1.2	1.0	.5	.7	1.1
Manufacturing .....	142.0	143.6	.7	.6	.7	.6	.6	.6	.9	1.1
Durables .....	142.2	144.0	.7	.6	.7	.6	.6	.7	.9	1.3
Nondurables .....	141.6	143.0	.8	.6	.8	.5	.8	.6	.9	1.0
Service producing <sup>4</sup> .....	143.9	145.5	.7	.9	1.2	.8	.1	1.4	.8	1.1
Transportation and public utilities <sup>5</sup> .....	141.8	142.5	.9	1.2	.9	.7	.0	1.1	.6	.5
Wholesale trade <sup>3</sup> .....	146.3	148.8	1.6	.6	1.7	1.6	-.3	1.3	1.3	1.7
Retail trade .....	139.6	141.0	.9	.8	1.0	.2	.7	1.5	.4	1.0
Finance, insurance, and real estate <sup>3,6</sup> .....	147.6	148.3	1.6	1.2	1.9	1.1	-.7	3.0	1.2	.5
Services .....	146.0	147.7	.5	.8	.9	.8	.5	.8	.9	1.2
Nonmanufacturing .....	143.2	144.7	.8	.9	1.1	.9	.2	1.3	.8	1.0
<b>Occupational group</b>										
White collar .....	145.5	147.2	.7	1.0	1.1	.9	.0	1.3	1.0	1.2
Blue collar .....	139.3	140.7	.5	.8	.7	.7	.7	.8	.9	1.0
Service <sup>3</sup> .....	140.5	142.1	.9	.7	.8	.5	1.1	.9	.1	1.1
<b>WAGES AND SALARIES</b>										
Civilian workers .....	141.1	142.4	.9	.9	1.1	.7	.5	1.2	.9	.9
State and local government .....	141.7	143.2	.7	.7	.7	.8	.6	1.0	.9	1.1
Private industry .....	140.9	142.3	.9	1.0	1.2	.7	.4	1.2	.8	1.0
<b>Industry</b>										
Goods producing <sup>2,6</sup> .....	138.5	139.7	1.1	.9	.8	.7	.8	.7	.9	.9
Construction <sup>3</sup> .....	132.7	133.9	1.0	1.3	.2	1.0	1.2	.5	.8	.9
Manufacturing <sup>6</sup> .....	140.2	141.5	1.1	.7	1.0	.6	.8	.8	.9	.9
Durables <sup>6</sup> .....	140.4	141.8	1.1	.8	1.0	.7	.7	.9	.9	1.0
Nondurables .....	139.8	141.1	.9	.6	1.0	.7	.6	.6	.9	.9
Service producing <sup>4</sup> .....	142.0	143.4	.9	.9	1.4	.7	.3	1.4	.9	1.0
Transportation and public utilities <sup>5</sup> .....	137.5	137.9	.5	.8	1.0	.6	.1	1.3	.4	.3
Wholesale trade <sup>3</sup> .....	144.3	146.6	1.9	.4	1.8	1.5	-.4	.9	1.5	1.6
Retail trade .....	138.6	139.9	.8	.9	1.3	.1	.9	1.4	.3	.9
Finance, insurance, and real estate <sup>3,6</sup> .....	144.5	145.2	1.5	1.7	2.4	1.2	-1.9	3.8	1.5	.5
Services .....	144.4	146.1	.7	.9	1.1	.7	.9	.8	.8	1.2
Nonmanufacturing .....	140.8	142.3	.8	1.0	1.2	1.0	.2	1.3	.8	1.1

See footnotes at end of table.

TABLE A-1. **Employment Cost Index for total compensation,<sup>1</sup> wages and salaries, and benefit costs by industry and occupational group, selected periods, 1998-99** — Continued

(Seasonally adjusted data)

Industry and occupational group	Indexes (June 1989=100)		Percent changes for 3-months ended—							
	Sep. 1999	Dec. 1999	Mar. 1998	June 1998	Sep. 1998	Dec. 1998	Mar. 1999	June 1999	Sep. 1999	Dec. 1999
<b>WAGES AND SALARIES—Continued</b>										
<b>Occupational group</b>										
White collar .....	143.4	145.0	0.9	1.0	1.4	0.9	0.1	1.4	0.9	1.1
Blue collar <sup>6</sup> .....	136.8	137.7	.9	.8	.8	.6	.8	1.0	.9	.7
Service <sup>3</sup> .....	137.9	139.4	.8	.8	.8	.6	1.2	1.0	-.1	1.1
<b>BENEFIT COSTS</b>										
Civilian workers .....	147.5	149.4	.4	.7	.7	.6	.3	.9	.8	1.3
State and local government .....	144.7	146.7	.7	.7	.9	.6	.6	.6	.3	1.4
Private industry .....	148.1	150.1	.4	.7	.6	.7	.2	1.0	.9	1.4
<b>Industry</b>										
Goods producing <sup>2</sup> .....	146.2	148.4	-.1	.5	.4	.3	.7	.5	.8	1.5
Manufacturing .....	145.7	147.9	-.1	.4	.3	.1	.6	.5	1.0	1.5
Service producing <sup>4</sup> .....	149.3	151.1	.5	.8	.8	.9	-.1	1.3	1.0	1.2
Nonmanufacturing .....	149.3	151.0	.6	.8	.8	.8	.1	1.2	.9	1.1
<b>Occupational group</b>										
White collar .....	151.0	152.9	.5	.7	.8	.8	.0	1.1	1.1	1.3
Blue collar .....	144.7	146.2	.3	.6	.4	.5	.6	.7	.8	1.0
Service <sup>3</sup> .....	148.2	150.0	.8	.3	.6	.3	1.0	.9	.4	1.2

<sup>1</sup> Includes wages, salaries, and employer costs for employee benefits.

<sup>2</sup> Includes mining, construction, and manufacturing.

<sup>3</sup> Average standard errors (SE) for the unadjusted series upon which this series is based exceeded 0.3 percent for 3-month changes and 0.6 percent for 12-month changes for the 5 years ending December 1997. To assist users in ascertaining the reliability of the series, SEs for estimates in this publication (excluding seasonally adjusted series) will be available on the Internet site

(<http://stats.bls.gov/ecthome.htm>). All series will continue to be published until further notice.

<sup>4</sup> Includes transportation, communications, and public utilities; wholesale and retail trade; finance, insurance, and real estate; and service industries.

<sup>5</sup> Estimates for transportation and public utilities reflect the changes in SIC coding. See Technical Note for further information.

<sup>6</sup> No identifiable seasonality was found for this series.

TABLE A-2. **Employment Cost Index for total compensation<sup>1</sup> for civilian and State and local government workers by industry and occupational group, selected periods, 1998-99**

(Not seasonally adjusted data)

Industry and occupational group	Indexes (June 1989=100)			Percent changes for—					
	Dec. 1998	Sep. 1999	Dec. 1999	3 months ended—			12 months ended—		
				Dec. 1998	Sep. 1999	Dec. 1999	Dec. 1998	Sep. 1999	Dec. 1999
<b>Civilian workers</b> .....	139.8	143.3	144.6	0.6	1.1	0.9	3.4	3.1	3.4
Excluding sales occupations .....	139.5	143.2	144.5	.5	1.1	.9	3.1	3.2	3.6
<b>Industry</b>									
Goods producing <sup>2</sup> .....	137.9	141.2	142.5	.5	.9	.9	2.8	2.9	3.3
Manufacturing .....	138.9	142.1	143.6	.5	.9	1.1	2.7	2.8	3.4
Service producing <sup>3</sup> .....	140.4	144.0	145.3	.6	1.1	.9	3.6	3.2	3.5
Services .....	141.7	145.1	146.5	.6	1.3	1.0	3.0	3.1	3.4
Health services .....	139.1	142.7	144.3	.0	.9	1.1	.9	2.6	3.7
Hospitals .....	140.2	143.4	145.0	.6	.8	1.1	2.6	2.9	3.4
Educational services .....	141.0	144.6	145.8	.6	2.0	.8	2.9	3.1	3.4
Public administration <sup>4</sup> .....	139.9	142.4	144.4	.7	.6	1.4	3.6	2.5	3.2
Nonmanufacturing .....	139.9	143.4	144.7	.6	1.1	.9	3.6	3.2	3.4
<b>Occupational group</b>									
White collar .....	141.4	145.0	146.3	.6	1.2	.9	3.6	3.1	3.5
Excluding sales .....	141.2	145.1	146.4	.4	1.2	.9	3.1	3.2	3.7
Professional specialty and technical .....	141.0	143.9	145.3	.7	1.2	1.0	3.1	2.8	3.0
Executive, administrative, and managerial ...	141.8	147.3	148.6	.1	1.3	.9	3.3	4.0	4.8
Administrative support, including clerical .....	141.3	144.7	146.1	.6	.9	1.0	3.2	3.1	3.4
Blue collar .....	136.1	139.5	140.6	.6	.9	.8	2.8	3.1	3.3
Service <sup>5</sup> .....	140.0	143.1	144.8	.4	.5	1.2	3.2	2.7	3.4
<b>State and local government</b> .....	139.8	143.1	144.6	.6	1.5	1.0	3.0	2.9	3.4
<b>Industry</b>									
Services .....	139.7	143.2	144.5	.5	1.9	.9	2.7	3.0	3.4
Excluding schools <sup>5,6</sup> .....	138.8	142.6	143.8	.1	1.6	.8	2.6	2.8	3.6
Health services .....	140.7	144.2	145.8	.3	1.5	1.1	2.6	2.8	3.6
Hospitals .....	141.2	144.8	146.3	.4	1.5	1.0	2.6	2.9	3.6
Educational services .....	139.6	143.1	144.4	.6	2.0	.9	2.7	3.1	3.4
Schools .....	139.9	143.5	144.7	.6	2.1	.8	2.7	3.2	3.4
Elementary and secondary .....	139.3	142.9	144.1	.4	2.1	.8	2.6	3.0	3.4
Colleges and universities .....	141.5	144.8	146.5	1.0	1.9	1.2	3.1	3.4	3.5
Public administration <sup>4</sup> .....	139.9	142.4	144.4	.7	.6	1.4	3.6	2.5	3.2
<b>Occupational group</b>									
White collar .....	139.3	142.6	144.0	.7	1.7	1.0	2.8	3.0	3.4
Professional specialty and technical .....	138.5	142.0	143.2	.6	1.9	.8	2.5	3.1	3.4
Executive, administrative, and managerial ...	141.6	144.5	146.1	.9	1.2	1.1	3.8	2.9	3.2
Administrative support, including clerical .....	140.3	143.0	145.0	.6	1.2	1.4	3.1	2.5	3.4
Blue collar .....	137.8	140.9	142.5	.7	1.0	1.1	2.7	3.0	3.4
Service <sup>5</sup> .....	143.4	146.7	148.6	.3	1.0	1.3	4.1	2.6	3.6

<sup>1</sup> Includes wages, salaries, and employer costs for employee benefits.<sup>2</sup> Includes mining, construction, and manufacturing.<sup>3</sup> Includes transportation, communications, and public utilities; wholesale and retail trade; finance, insurance, and real estate; service industries; and public administration.<sup>4</sup> Includes executive, legislative, judicial, administrative, and regulatory activities of State and local governments, SICs 91 through 96.<sup>5</sup> Average standard errors (SE) for the series exceed 0.3 percent for3-month changes and 0.6 percent for 12-month changes for the 5 years ending December 1997. To assist users in ascertaining the reliability of the series, SEs for estimates in this publication (excluding seasonally adjusted series) will be available on the Internet site (<http://stats.bls.gov/ecthome.htm>). All series will continue to be published until further notice.<sup>6</sup> Formerly called hospitals and other services.

TABLE A-3. **Employment Cost Index for total compensation<sup>1</sup> for private industry workers by industry and occupational group, selected periods, 1998-99**

(Not seasonally adjusted data)

Industry and occupational group	Indexes (June 1989=100)			Percent changes for—					
	Dec. 1998	Sep. 1999	Dec. 1999	3 months ended—			12 months ended—		
				Dec. 1998	Sep. 1999	Dec. 1999	Dec. 1998	Sep. 1999	Dec. 1999
<b>Private industry workers</b> .....	139.8	143.3	144.6	0.6	0.9	0.9	3.5	3.1	3.4
Excluding sales occupations .....	139.4	143.2	144.5	.4	.9	.9	3.1	3.2	3.7
<b>Industry</b>									
<b>Goods producing<sup>2</sup></b> .....	137.8	141.1	142.5	.5	.9	1.0	2.8	2.9	3.4
Excluding sales .....	137.2	140.5	141.8	.5	.9	.9	2.7	2.9	3.3
White collar .....	140.2	143.9	145.5	.4	.8	1.1	2.9	3.0	3.7
Excluding sales .....	138.8	142.5	143.9	.4	.8	1.0	2.8	3.0	3.7
Blue collar .....	136.3	139.4	140.7	.6	.8	.9	2.6	2.9	3.2
Construction <sup>3</sup> .....	134.3	137.9	138.7	.7	.7	.6	3.5	3.4	3.3
Manufacturing .....	138.9	142.1	143.6	.5	.9	1.1	2.7	2.8	3.4
White collar .....	140.5	144.3	145.8	.3	.9	1.0	2.8	3.0	3.8
Excluding sales .....	138.7	142.5	143.8	.3	.8	.9	2.5	3.0	3.7
Blue collar .....	137.7	140.5	142.1	.7	.8	1.1	2.5	2.7	3.2
Durables .....	139.2	142.3	144.0	.5	.9	1.2	2.6	2.7	3.4
Aircraft manufacturing (SIC 3721) .....	140.6	143.7	146.9	.9	.9	2.2	2.7	3.2	4.5
White collar .....	137.4	139.8	141.7	.0	.2	1.4	2.3	1.7	3.1
Blue collar .....	144.4	149.0	154.4	2.6	2.3	3.6	3.4	5.8	6.9
Nondurables .....	138.2	141.5	142.8	.4	.8	.9	2.8	2.8	3.3
<b>Service producing<sup>4</sup></b> .....	140.5	144.1	145.3	.6	.9	.8	3.8	3.2	3.4
Excluding sales .....	140.6	144.6	145.9	.4	.9	.9	3.3	3.3	3.8
White collar .....	142.2	145.8	147.0	.7	1.0	.8	4.1	3.3	3.4
Excluding sales .....	142.8	147.0	148.3	.4	1.0	.9	3.4	3.4	3.9
Blue collar .....	134.8	139.1	139.8	.4	.9	.5	3.0	3.6	3.7
Service .....	137.8	140.8	142.4	.6	.2	1.1	2.9	2.8	3.3
Transportation and public utilities <sup>5</sup> .....	139.3	141.8	142.3	.6	.6	.4	3.8	2.4	2.2
Transportation <sup>3,5</sup> .....	137.3	138.7	139.5	.4	.4	.6	2.9	1.5	1.6
Public utilities .....	141.9	145.7	146.1	.9	.8	.3	5.0	3.6	3.0
Communications .....	141.7	146.1	146.0	.9	.8	-.1	5.7	4.0	3.0
Electric, gas, and sanitary services .....	142.1	145.1	146.1	.8	.6	.7	4.2	2.9	2.8
Wholesale and retail trade .....	138.2	142.2	143.5	.4	.8	.9	4.0	3.3	3.8
Excluding sales .....	138.8	142.8	144.3	.5	.6	1.1	3.6	3.4	4.0
Wholesale trade <sup>3</sup> .....	142.8	146.3	148.5	1.4	1.2	1.5	5.7	3.9	4.0
Excluding sales .....	141.2	145.8	147.4	.9	1.3	1.1	4.3	4.1	4.4
Retail trade .....	135.6	140.0	140.7	-.2	.6	.5	3.0	3.0	3.8
General merchandise stores <sup>3</sup> .....	134.0	137.2	138.3	.6	1.2	.8	3.1	3.0	3.2
Food stores <sup>3</sup> .....	132.7	137.0	138.1	-.7	1.0	.8	2.6	2.5	4.1
Finance, insurance, and real estate <sup>3</sup> .....	142.5	147.6	148.3	1.1	1.2	.5	5.9	4.7	4.1
Excluding sales .....	143.3	151.0	151.6	.1	1.5	.4	4.1	5.4	5.8
Banking, savings and loan, and other credit agencies <sup>3</sup> .....	146.7	159.3	159.8	-1.1	2.5	.3	4.3	7.3	8.9
Insurance <sup>3</sup> .....	141.7	144.5	145.8	-.1	.3	.9	5.1	1.8	2.9
Excluding sales .....	142.5	146.2	147.0	.6	.6	.5	2.8	3.2	3.2
Services .....	142.7	146.1	147.6	.6	1.0	1.0	3.0	3.0	3.4
Business services <sup>3</sup> .....	145.9	150.7	151.9	1.7	1.3	.8	5.3	5.0	4.1
Health services .....	139.0	142.6	144.2	.0	.8	1.1	.7	2.6	3.7
Hospitals .....	139.9	143.0	144.6	.6	.6	1.1	2.5	2.8	3.4
Nursing homes .....	—	—	—	.6	.9	1.1	3.2	3.7	4.2
Educational services .....	147.7	152.2	153.0	.5	2.4	.5	3.6	3.5	3.6
Colleges and universities .....	148.5	152.6	153.3	.5	2.0	.5	3.3	3.2	3.2

See footnotes at end of table.

TABLE A-3. **Employment Cost Index for total compensation<sup>1</sup> for private industry workers by industry and occupational group, selected periods, 1998-99** — Continued

(Not seasonally adjusted data)

Industry and occupational group	Indexes (June 1989=100)			Percent changes for—					
	Dec. 1998	Sep. 1999	Dec. 1999	3 months ended—			12 months ended—		
				Dec. 1998	Sep. 1999	Dec. 1999	Dec. 1998	Sep. 1999	Dec. 1999
<b>Industry—Continued</b>									
<b>Nonmanufacturing industries</b> .....	139.7	143.4	144.5	0.6	1.0	0.8	3.7	3.2	3.4
White collar .....	142.0	145.6	146.9	.6	1.0	.9	4.0	3.2	3.5
Excluding sales .....	142.7	146.8	148.1	.5	1.0	.9	3.5	3.4	3.8
Blue collar .....	134.0	138.0	138.7	.4	.9	.5	3.0	3.4	3.5
Service .....	137.7	140.7	142.3	.6	.2	1.1	2.9	2.8	3.3
<b>Occupational group</b>									
<b>White collar</b> .....	142.0	145.6	146.9	.6	1.0	.9	3.9	3.2	3.5
Excluding sales .....	141.9	146.0	147.3	.4	1.0	.9	3.3	3.3	3.8
Professional specialty and technical .....	142.6	145.2	146.7	.7	.8	1.0	3.5	2.5	2.9
Executive, administrative, and managerial ...	141.8	147.7	149.1	-.1	1.3	.9	3.2	4.1	5.1
Sales <sup>3</sup> .....	142.6	144.1	145.3	1.6	1.1	.8	6.8	2.6	1.9
Administrative support, including clerical .....	141.4	145.0	146.2	.6	.9	.8	3.2	3.1	3.4
<b>Blue collar</b> .....	135.9	139.4	140.5	.5	.9	.8	2.7	3.1	3.3
Precision production, craft, and repair .....	136.1	139.6	140.6	.5	.9	.7	3.2	3.1	3.3
Machine operators, assemblers, and inspectors .....	136.8	139.9	141.4	.8	1.1	1.1	2.9	3.1	3.4
Transportation and material moving .....	130.7	134.4	135.2	.0	.6	.6	1.4	2.8	3.4
Handlers, equipment cleaners, helpers, and laborers .....	139.2	143.2	144.4	.5	.6	.8	2.5	3.4	3.7
<b>Service</b> .....	138.0	141.0	142.6	.5	.3	1.1	2.9	2.7	3.3
<b>Production and nonsupervisory occupations<sup>6</sup></b> .....	139.0	141.9	143.1	.7	.8	.8	3.6	2.8	2.9

<sup>1</sup> Includes wages, salaries, and employer costs for employee benefits.<sup>2</sup> Includes mining, construction, and manufacturing.<sup>3</sup> Average standard errors (SE) for the series exceed 0.3 percent for 3-month changes and 0.6 percent for 12-month changes for the 5 years ending December 1997. To assist users in ascertaining the reliability of the series, SEs for estimates in this publication (excluding seasonally adjusted series) will be available on the Internet site (<http://stats.bls.gov/ecthome.htm>). All series will continue to be published until further notice.<sup>4</sup> Includes transportation, communications, and public utilities; wholesale and retail trade; finance, insurance, and real estate; and service industries.<sup>5</sup> Estimates for transportation and public utilities reflect the changes in SIC coding. See Technical Note for further information.<sup>6</sup> This series has the same industry and occupational coverage as the Hourly Earnings Index, which was discontinued in January 1989.

NOTE: Dashes indicate data not available.

TABLE A-4. **Employment Cost Index for total compensation<sup>1</sup> for private industry workers by bargaining status, region, and area, selected periods, 1998-99**

(Not seasonally adjusted data)

Bargaining status, region, and area	Indexes (June 1989=100)			Percent changes for—					
	Dec. 1998	Sep. 1999	Dec. 1999	3 months ended—			12 months ended—		
				Dec. 1998	Sep. 1999	Dec. 1999	Dec. 1998	Sep. 1999	Dec. 1999
<b>Bargaining status</b>									
<b>Union</b> .....	137.5	140.2	141.2	0.5	0.9	0.7	3.0	2.5	2.7
Blue-collar occupations .....	135.3	137.8	138.9	.5	.8	.8	2.8	2.4	2.7
Goods-producing industries <sup>2</sup> .....	136.5	139.2	140.8	.7	.7	1.1	3.0	2.7	3.2
Service-producing industries .....	138.5	141.0	141.4	.4	.9	.3	3.0	2.2	2.1
Manufacturing .....	136.9	139.1	141.0	.7	.7	1.4	2.7	2.3	3.0
Blue-collar occupations .....	136.4	138.5	140.4	.7	.7	1.4	2.6	2.2	2.9
Nonmanufacturing .....	137.4	140.3	140.8	.4	.8	.4	3.2	2.5	2.5
<b>Nonunion</b> .....	140.1	143.8	145.2	.6	.9	1.0	3.5	3.2	3.6
Blue-collar occupations .....	136.3	140.3	141.4	.6	.9	.8	2.8	3.5	3.7
Goods-producing industries <sup>2</sup> .....	138.3	141.8	143.1	.4	.9	.9	2.7	3.0	3.5
Service-producing industries .....	140.6	144.4	145.7	.6	1.0	.9	3.9	3.4	3.6
Manufacturing .....	139.4	143.0	144.4	.4	.9	1.0	2.6	3.0	3.5
Blue-collar occupations .....	138.3	141.6	142.9	.7	1.0	.9	2.6	3.1	3.3
Nonmanufacturing .....	140.0	143.8	145.1	.6	1.0	.9	3.8	3.4	3.6
<b>Region<sup>3</sup></b>									
Northeast .....	139.5	143.2	144.3	.6	1.2	.8	3.3	3.2	3.4
South .....	138.1	141.8	143.0	.4	.8	.8	2.6	3.1	3.5
Midwest .....	141.4	145.0	146.3	.4	1.0	.9	3.3	2.9	3.5
West .....	140.0	143.3	144.7	1.1	.8	1.0	4.9	3.5	3.4
<b>Area</b>									
Metropolitan .....	139.8	143.3	144.7	.5	.9	1.0	3.5	3.0	3.5
Other .....	139.4	143.1	143.6	.9	.9	.3	3.0	3.5	3.0

<sup>1</sup> Includes wages, salaries, and employer costs for employee benefits.

<sup>2</sup> Includes mining, construction, and manufacturing.

<sup>3</sup> The regional coverage is as follows: Northeast—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; South—Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee,

Texas, Virginia, and West Virginia; Midwest—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; and West—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

NOTE: The indexes for these series are not strictly comparable to those for the aggregate, occupation, and industry series.

TABLE A-5. **Employment Cost Index for wages and salaries for civilian and State and local government workers by industry and occupational group, selected periods, 1998-99**

(Not seasonally adjusted data)

Industry and occupational group	Indexes (June 1989=100)			Percent changes for—					
	Dec. 1998	Sep. 1999	Dec. 1999	3 months ended—			12 months ended—		
				Dec. 1998	Sep. 1999	Dec. 1999	Dec. 1998	Sep. 1999	Dec. 1999
<b>Civilian workers</b> .....	137.7	141.3	142.5	0.7	1.1	0.8	3.7	3.3	3.5
Excluding sales occupations .....	137.3	141.1	142.3	.5	1.1	.9	3.4	3.3	3.6
<b>Industry</b>									
Goods producing <sup>1</sup> .....	135.2	138.6	139.7	.6	.9	.8	3.5	3.1	3.3
Manufacturing .....	136.8	140.2	141.5	.6	.9	.9	3.5	3.1	3.4
Service producing <sup>2</sup> .....	138.7	142.3	143.5	.7	1.1	.8	3.8	3.3	3.5
Services .....	140.5	144.1	145.5	.6	1.3	1.0	3.3	3.2	3.6
Health services .....	137.6	140.9	142.5	.0	.9	1.1	1.6	2.4	3.6
Hospitals .....	137.1	140.1	141.6	.5	.9	1.1	2.6	2.7	3.3
Educational services .....	140.0	143.7	144.7	.6	2.2	.7	3.0	3.3	3.4
Public administration <sup>3</sup> .....	135.9	139.5	141.5	.8	1.2	1.4	3.4	3.5	4.1
Nonmanufacturing .....	137.8	141.5	142.6	.6	1.1	.8	3.8	3.3	3.5
<b>Occupational group</b>									
White collar .....	139.7	143.3	144.6	.6	1.2	.9	4.0	3.2	3.5
Excluding sales .....	139.5	143.5	144.8	.5	1.2	.9	3.5	3.4	3.8
Professional specialty and technical .....	139.4	142.6	144.0	.6	1.1	1.0	3.3	3.0	3.3
Executive, administrative, and managerial .....	140.3	145.9	147.2	-.1	1.5	.9	3.5	3.8	4.9
Administrative support, including clerical .....	138.6	142.3	143.5	.8	1.0	.8	3.7	3.5	3.5
Blue collar .....	133.3	137.0	137.9	.5	.9	.7	3.1	3.3	3.5
Service <sup>4</sup> .....	137.0	140.1	141.7	.7	.5	1.1	3.3	2.9	3.4
<b>State and local government</b> .....	138.5	142.2	143.5	.7	1.9	.9	3.1	3.3	3.6
<b>Industry</b>									
Services .....	139.2	142.9	144.0	.6	2.1	.8	2.9	3.3	3.4
Excluding schools <sup>4,5</sup> .....	138.2	142.1	143.2	.3	1.8	.8	2.8	3.1	3.6
Health services .....	139.2	142.8	144.2	.4	1.7	1.0	2.9	3.0	3.6
Hospitals .....	139.1	142.8	144.1	.4	1.6	.9	2.9	3.0	3.6
Educational services .....	139.3	142.9	144.0	.7	2.2	.8	3.0	3.3	3.4
Schools .....	139.5	143.1	144.2	.7	2.2	.8	3.0	3.3	3.4
Elementary and secondary .....	139.3	143.1	144.1	.4	2.3	.7	2.7	3.2	3.4
Colleges and universities .....	139.6	142.6	144.4	1.4	2.0	1.3	3.7	3.6	3.4
Public administration <sup>3</sup> .....	135.9	139.5	141.5	.8	1.2	1.4	3.4	3.5	4.1
<b>Occupational group</b>									
White collar .....	138.5	142.1	143.4	.7	2.0	.9	3.0	3.3	3.5
Professional specialty and technical .....	138.7	142.5	143.6	.6	2.2	.8	2.7	3.3	3.5
Executive, administrative, and managerial .....	139.3	142.7	144.3	.9	1.6	1.1	3.9	3.4	3.6
Administrative support, including clerical .....	136.5	139.6	141.7	.8	1.5	1.5	3.2	3.1	3.8
Blue collar .....	136.0	139.4	140.7	.7	1.3	.9	2.8	3.2	3.5
Service <sup>4</sup> .....	140.0	144.1	145.7	.6	1.4	1.1	3.6	3.5	4.1

<sup>1</sup> Includes mining, construction, and manufacturing.<sup>2</sup> Includes transportation, communications, and public utilities; wholesale and retail trade; finance, insurance, and real estate; service industries; and public administration.<sup>3</sup> Includes executive, legislative, judicial, administrative, and regulatory activities of State and local governments, SICs 91 through 96.<sup>4</sup> Average standard errors (SE) for the series exceed 0.3 percent for3-month changes and 0.6 percent for 12-month changes for the 5 years ending December 1997. To assist users in ascertaining the reliability of the series, SEs for estimates in this publication (excluding seasonally adjusted series) will be available on the Internet site (<http://stats.bls.gov/ecthome.htm>). All series will continue to be published until further notice.<sup>5</sup> Formerly called hospitals and other services.



TABLE A-6. **Employment Cost Index for wages and salaries for private industry workers by industry and occupational group, selected periods, 1998-99**

(Not seasonally adjusted data)

Industry and occupational group	Indexes (June 1989=100)			Percent changes for—					
	Dec. 1998	Sep. 1999	Dec. 1999	3 months ended—			12 months ended—		
				Dec. 1998	Sep. 1999	Dec. 1999	Dec. 1998	Sep. 1999	Dec. 1999
<b>Private industry workers</b> .....	137.4	141.0	142.2	0.6	0.9	0.9	3.9	3.2	3.5
Excluding sales occupations .....	136.9	140.8	142.0	.4	.9	.9	3.4	3.3	3.7
<b>Industry</b>									
<b>Goods producing</b> <sup>1</sup> .....	135.2	138.5	139.7	.7	.9	.9	3.5	3.1	3.3
Excluding sales .....	134.4	137.8	138.9	.6	.9	.8	3.4	3.1	3.3
White collar .....	138.2	141.7	143.0	.6	.9	.9	4.0	3.1	3.5
Excluding sales .....	136.4	140.1	141.3	.5	.9	.9	3.6	3.2	3.6
Blue collar .....	133.3	136.6	137.6	.8	.9	.7	3.2	3.3	3.2
Construction <sup>2</sup> .....	129.3	133.0	133.6	.6	.8	.5	3.5	3.5	3.3
Manufacturing .....	136.8	140.2	141.5	.6	.9	.9	3.5	3.1	3.4
White collar .....	139.0	142.7	144.0	.5	.9	.9	4.0	3.2	3.6
Excluding sales .....	137.1	140.8	142.0	.6	.9	.9	3.7	3.3	3.6
Blue collar .....	135.3	138.4	139.7	.7	.9	.9	3.1	3.1	3.3
Durables .....	136.9	140.4	141.8	.7	.9	1.0	3.8	3.3	3.6
Aircraft manufacturing (SIC 3721) .....	138.3	142.7	143.6	.8	.8	.6	3.2	4.0	3.8
White collar .....	134.5	138.3	139.1	.4	.2	.6	3.6	3.3	3.4
Blue collar .....	143.2	148.9	149.9	1.6	2.3	.7	2.6	5.6	4.7
Nondurables .....	136.8	139.7	140.9	.6	.7	.9	3.2	2.7	3.0
<b>Service producing</b> <sup>3</sup> .....	138.4	142.1	143.3	.6	.9	.8	4.0	3.3	3.5
Excluding sales .....	138.5	142.6	143.8	.4	.8	.8	3.4	3.4	3.8
White collar .....	140.1	143.8	145.0	.6	1.1	.8	4.3	3.3	3.5
Excluding sales .....	140.7	145.1	146.4	.4	1.0	.9	3.5	3.5	4.1
Blue collar .....	132.9	137.0	137.8	.4	.8	.6	3.1	3.5	3.7
Service .....	135.2	138.0	139.6	.7	.1	1.2	3.2	2.8	3.3
Transportation and public utilities <sup>4</sup> .....	135.1	137.5	137.9	.6	.5	.3	2.9	2.4	2.1
Transportation <sup>2,4</sup> .....	132.9	134.4	134.9	.4	.5	.4	2.6	1.5	1.5
Public utilities .....	137.8	141.5	141.8	1.0	.6	.2	3.2	3.7	2.9
Communications .....	138.0	141.9	142.2	1.0	.6	.2	3.0	3.8	3.0
Electric, gas, and sanitary services .....	137.4	140.9	141.3	.8	.6	.3	3.4	3.4	2.8
Wholesale and retail trade .....	137.0	140.7	142.0	.3	.8	.9	4.1	3.0	3.6
Excluding sales .....	138.2	141.8	143.3	.4	.5	1.1	3.8	3.1	3.7
Wholesale trade <sup>2</sup> .....	141.3	144.3	146.5	1.4	1.4	1.5	5.8	3.6	3.7
Excluding sales .....	140.8	144.8	146.4	.9	1.3	1.1	4.3	3.7	4.0
Retail trade .....	134.8	138.9	139.6	-.3	.4	.5	3.2	2.7	3.6
General merchandise stores <sup>2</sup> .....	133.0	135.6	136.7	.6	1.0	.8	3.6	2.6	2.8
Food stores <sup>2</sup> .....	130.5	133.9	134.9	-.9	.8	.7	2.8	1.7	3.4
Finance, insurance, and real estate <sup>2</sup> .....	139.8	144.5	145.2	1.2	1.5	.5	7.0	4.6	3.9
Excluding sales .....	139.6	147.5	148.0	-.1	1.9	.3	4.5	5.6	6.0
Banking, savings and loan, and other credit agencies <sup>2</sup> .....	144.4	159.2	159.6	-1.8	3.0	.3	4.4	8.3	10.5
Insurance <sup>2</sup> .....	138.5	140.2	141.5	-.1	.3	.9	6.4	1.1	2.2
Excluding sales .....	137.9	140.9	141.6	1.0	.7	.5	3.1	3.1	2.7
Services .....	140.8	144.5	146.0	.6	.9	1.0	3.4	3.2	3.7
Business services <sup>2</sup> .....	144.1	148.5	149.8	1.6	1.5	.9	5.0	4.7	4.0
Health services .....	137.4	140.6	142.2	-.1	.7	1.1	1.5	2.3	3.5
Hospitals .....	136.5	139.3	140.9	.5	.7	1.1	2.5	2.6	3.2
Nursing homes .....	—	—	—	.5	.9	1.1	3.7	3.8	4.4
Educational services .....	143.5	147.5	148.2	.5	2.3	.5	3.7	3.3	3.3
Colleges and universities .....	143.6	147.2	147.9	.6	1.9	.5	3.5	3.1	3.0

See footnotes at end of table.

TABLE A-6. **Employment Cost Index for wages and salaries for private industry workers by industry and occupational group, selected periods, 1998-99** — Continued

(Not seasonally adjusted data)

Industry and occupational group	Indexes (June 1989=100)			Percent changes for—					
	Dec. 1998	Sep. 1999	Dec. 1999	3 months ended—			12 months ended—		
				Dec. 1998	Sep. 1999	Dec. 1999	Dec. 1998	Sep. 1999	Dec. 1999
Industry—Continued									
Nonmanufacturing industries .....	137.4	141.0	142.1	0.7	0.9	0.8	4.0	3.3	3.4
White collar .....	139.8	143.5	144.7	.6	1.1	.8	4.3	3.3	3.5
Excluding sales .....	140.3	144.6	145.9	.4	1.0	.9	3.5	3.4	4.0
Blue collar .....	131.1	135.1	135.8	.5	.8	.5	3.1	3.5	3.6
Service .....	135.1	137.9	139.5	.7	.1	1.2	3.2	2.8	3.3
Occupational group									
White collar .....	139.9	143.5	144.8	.6	1.0	.9	4.2	3.2	3.5
Excluding sales .....	139.7	143.9	145.2	.4	1.0	.9	3.6	3.5	3.9
Professional specialty and technical .....	139.7	142.6	144.1	.7	.6	1.1	3.6	2.8	3.1
Executive, administrative, and managerial ...	140.5	146.4	147.6	-.3	1.5	.8	3.5	3.9	5.1
Sales <sup>2</sup> .....	141.3	142.1	143.3	1.8	1.1	.8	7.5	2.4	1.4
Administrative support, including clerical .....	138.9	142.7	143.8	.7	.9	.8	3.7	3.5	3.5
Blue collar .....	133.2	136.8	137.7	.6	.9	.7	3.2	3.3	3.4
Precision production, craft, and repair .....	133.0	136.7	137.5	.5	.8	.6	3.3	3.3	3.4
Machine operators, assemblers, and inspectors .....	134.9	138.3	139.5	.8	1.2	.9	3.3	3.4	3.4
Transportation and material moving .....	127.8	131.9	132.7	.2	.7	.6	2.2	3.4	3.8
Handlers, equipment cleaners, helpers, and laborers .....	135.8	139.4	140.4	.5	.8	.7	3.0	3.2	3.4
Service .....	135.3	138.0	139.6	.7	.1	1.2	3.2	2.7	3.2
Production and nonsupervisory occupations <sup>5</sup> .....	136.4	139.3	140.4	.9	.8	.8	4.0	3.0	2.9

<sup>1</sup> Includes mining, construction, and manufacturing.<sup>2</sup> Average standard errors (SE) for the series exceed 0.3 percent for 3-month changes and 0.6 percent for 12-month changes for the 5 years ending December 1997. To assist users in ascertaining the reliability of the series, SEs for estimates in this publication (excluding seasonally adjusted series) will be available on the Internet site (<http://stats.bls.gov/ecthome.htm>). All series will continue to be published until further notice.<sup>3</sup> Includes transportation, communications, and public utilities; wholesale and retail trade; finance, insurance, and real estate; and service industries.<sup>4</sup> Estimates for transportation and public utilities reflect the changes in SIC coding. See Technical Note for further information.<sup>5</sup> This series has the same industry and occupational coverage as the Hourly Earnings Index, which was discontinued in January 1989.

NOTE: Dashes indicate data not available.

TABLE A-7. **Employment Cost Index for wages and salaries for private industry workers by bargaining status, region, and area, selected periods, 1998-99**

(Not seasonally adjusted data)

Bargaining status, region, and area	Indexes (June 1989=100)			Percent changes for—					
	Dec. 1998	Sep. 1999	Dec. 1999	3 months ended—			12 months ended—		
				Dec. 1998	Sep. 1999	Dec. 1999	Dec. 1998	Sep. 1999	Dec. 1999
<b>Bargaining status</b>									
<b>Union</b> .....	133.1	135.7	136.5	0.5	0.7	0.6	3.3	2.5	2.6
Blue-collar occupations .....	130.6	133.6	134.5	.5	.8	.7	3.1	2.8	3.0
Goods-producing industries <sup>1</sup> .....	131.7	134.9	136.1	.5	.8	.9	3.6	3.0	3.3
Service-producing industries .....	134.8	136.8	137.2	.5	.7	.3	2.7	2.0	1.8
Manufacturing .....	133.0	135.8	137.5	.6	.8	1.3	3.4	2.7	3.4
Blue-collar occupations .....	132.4	135.1	136.8	.8	.7	1.3	3.1	2.8	3.3
Nonmanufacturing .....	133.1	135.6	135.9	.5	.7	.2	3.1	2.4	2.1
<b>Nonunion</b> .....	138.3	142.0	143.3	.7	.9	.9	4.0	3.3	3.6
Blue-collar occupations .....	134.8	138.7	139.7	.6	.9	.7	3.2	3.5	3.6
Goods-producing industries <sup>1</sup> .....	136.5	140.0	141.1	.6	.9	.8	3.4	3.2	3.4
Service-producing industries .....	138.8	142.6	143.9	.7	.9	.9	4.2	3.4	3.7
Manufacturing .....	138.2	141.7	142.9	.7	.9	.8	3.5	3.2	3.4
Blue-collar occupations .....	137.2	140.5	141.6	.7	.9	.8	3.2	3.2	3.2
Nonmanufacturing .....	138.0	141.8	143.0	.7	.9	.8	4.1	3.4	3.6
<b>Region<sup>2</sup></b>									
Northeast .....	136.4	139.9	140.9	.7	1.2	.7	3.6	3.3	3.3
South .....	136.7	140.2	141.5	.1	.6	.9	2.8	2.7	3.5
Midwest .....	138.0	142.4	143.6	.4	1.0	.8	3.8	3.6	4.1
West .....	138.4	141.3	142.6	1.2	.8	.9	5.5	3.4	3.0
<b>Area</b>									
Metropolitan .....	137.7	141.2	142.5	.6	.9	.9	4.1	3.1	3.5
Other .....	136.0	139.8	140.2	1.0	1.0	.3	3.0	3.8	3.1

<sup>1</sup> Includes mining, construction, and manufacturing.

<sup>2</sup> The regional coverage is as follows: Northeast—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; South—Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; Midwest—Illinois, Indiana, Iowa,

Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; and West—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

NOTE: The indexes for these series are not strictly comparable to those for the aggregate, occupation, and industry series.

TABLE A-8. **Employment Cost Index for benefits for civilian, State and local government, and private industry workers by industry, occupational group, and bargaining status, selected periods, 1998-99**

(Not seasonally adjusted data)

Industry, occupational group, and bargaining status	Indexes (June 1989=100)			Percent changes for—					
	Dec. 1998	Sep. 1999	Dec. 1999	3 months ended—			12 months ended—		
				Dec. 1998	Sep. 1999	Dec. 1999	Dec. 1998	Sep. 1999	Dec. 1999
<b>Civilian workers</b> .....	144.7	147.9	149.5	0.5	0.9	1.1	2.6	2.7	3.3
State and local government .....	142.7	145.0	146.7	.4	.7	1.2	3.0	2.0	2.8
Private industry .....	145.2	148.6	150.2	.5	.9	1.1	2.4	2.8	3.4
<b>Industry</b>									
Goods producing <sup>1</sup> .....	143.2	146.3	148.2	.1	.8	1.3	1.2	2.3	3.4
Service producing <sup>2</sup> .....	145.7	149.4	150.7	.6	1.0	.9	3.0	3.1	3.4
Manufacturing .....	142.7	145.7	147.8	.1	.8	1.4	.7	2.2	3.4
Aircraft manufacturing (SIC 3721) .....	145.3	145.6	153.9	1.0	.9	5.7	1.6	1.3	5.9
White collar <sup>3</sup> .....	143.9	142.9	147.6	-1.1	.1	3.3	-6	-1.8	2.6
Blue collar .....	146.6	149.5	163.0	4.2	2.2	9.0	5.0	6.3	11.2
Nonmanufacturing .....	145.8	149.4	150.7	.6	.9	.9	3.0	3.0	3.4
<b>Occupational group</b>									
White collar .....	147.4	151.0	152.5	.5	1.1	1.0	2.8	3.0	3.5
Blue collar .....	141.6	144.8	146.2	.4	.8	1.0	1.9	2.7	3.2
Service <sup>3</sup> .....	144.8	148.4	149.9	.1	.5	1.0	2.0	2.6	3.5
<b>Bargaining status</b>									
Union .....	145.5	148.3	149.7	.3	1.0	.9	2.5	2.3	2.8
Nonunion .....	144.9	148.5	150.0	.5	1.0	1.0	2.4	3.0	3.5

<sup>1</sup> Includes mining, construction, and manufacturing.<sup>2</sup> Includes transportation, communications, and public utilities; wholesale and retail trade; finance, insurance, and real estate; and service industries.<sup>3</sup> Average standard errors (SE) for the series exceed 0.3 percent for 3-month changes and 0.6 percent for 12-month changes for the 5 yearsending December 1997. To assist users in ascertaining the reliability of the series, SEs for estimates in this publication (excluding seasonally adjusted series) will be available on the Internet site at <http://stats.bls.gov/ecthome.htm>. All series will continue to be published until further notice.